Online Supplement. Study Characteristics of the 48 Independent Samples Included in the Meta-Analysis

| Study | N | Age Groups | Mean age | % male | Country | Smoking Status | Probability Sample | Study Design | Theory | Dependent Variables and Effect Size (d) |
|-------------------------------|------|---------------|-------------|-----------|------------------|-----------------------------------|-----------------------|-----------------|-------------------------------------|--|
| Bansel-Travers (2011)[24] | 397 | YA, A | _ | 51 | United States | Smokers and non- smokers | No | Within | Т | Attention attracting (d=2.00) Be generally effective (d=2.36) Cognitive elaboration (d=2.59) Lower purchase interest (d= 1.79) Motivate others to quit smoking (d=2.36) |
| Cantrell (2013)[37] | 3371 | YA, A | 44 | 39 | United States | Smokers | Partial | Between | Knowledge gap, communication theory | Attention attracting (d=.51) Be effective (scale) (d=.43) Credibility (d=.20) Intention to quit smoking (d=.14) |
| Duffy (2000)[62] | 580 | C, AD | _ | 43 | United States | Smokers and non- smokers | No | Within | _ | Credibility (d=.09) Other – importance (d=.05) |
| Erceg-Hurn (2011)[38] | 250 | YA, A | 29 | 54 | Australia | Smokers | No | Between | Psychological reactance | Lower psychological reactance (d=80) |
| Fathelrahman (2010)[35] | 140 | YA, A | _ | 100 | Malaysia | Smokers | No | Between | | Attention attracting (d=.69) Avoidance behavior (d=.18) Cognitive elaboration (d=.64) Intention to quit smoking (d=.38) Knowledge (d=.50) Motivate me to cut down on smoking (d=.61) Motivate me to quit smoking (d=.38) |
| Fong (2010)[13] | 1169 | AD, YA, A | _ | 50 | China | Smokers and non- smokers | No | Within | | Motivate me/others to not start smoking (d=1.03) Motivate others to quit smoking (d=1.02) |
| Glock (2009) - Smokers[41] | 30 | YA | 22.4 | 7 | Germany | Smokers | No | Between | Cognitive dissonance | Perceived likelihood of harm (d=.00) |

| | | | | | | | | | theory | Response time (d=51) |
|--|-----|-------|------|----|------------------|-----------------------------------|-----|---------|--|--|
| Glock (2009) - Non- Smokers[41] | 30 | YA | 21.7 | 13 | Germany | Non- smokers | No | Between | Cognitive dissonance theory | Perceived likelihood of harm (d=0.44) Response time (d=32) |
| Glock (2012)[63] | 60 | YA, A | 23 | 23 | Germany | Smokers | No | Between | Fear appeals | Perceived likelihood of harm (d=52) |
| Golmier (2007)[40] | 186 | AD | 14 | 56 | Canada | Smokers and non- smokers | No | Between | Stereotype priming model | Intentions to not start smoking (d=.24) Negative smoking attitudes (d=.43) |
| Gygax (2010) - 13-14 year olds[64] | 51 | AD | 13.3 | 55 | Switzer- land | Smokers and non- smokers | No | Between | Health belief model, Fear Appeals, Prospect Theory | Response time (d=.00) |
| Gygax (2010) - 15-16 year olds[64] | 29 | AD | 15.2 | 48 | Switzer- land | Smokers and non- smokers | No | Between | Health belief model, Fear appeals, Prospect theory | Response time (d=.00) |
| Gygax (2010) - 17-18 year olds[64] | 38 | AD | 17.7 | 45 | Switzer- land | Smokers and non- smokers | No | Between | Health belief model, Fear appeals, Prospect theory | Response time (d=.00) |
| Hammond (2012) - Adults[44] | 544 | YA, A | 29.3 | 52 | Mexico | Smokers | Yes | Within | Fear appeals | Be generally effective |
| Hammond (2012) - Adolescents[44] | 528 | AD | 17 | 50 | Mexico | Smokers and non- smokers | Yes | Within | Fear appeals | Be generally effective (d=.79) |
| Hoek (2006)[65] | 310 | YA, A | 30 | 34 | New Zealand | Smokers | No | Between | _ | Motivate me to cut down on smoking (d=.26) Motivate me to quit smoking (d=.32) |

| Jansen (2006)[43] | 213 | YA, A | 21.3 | 43 | Nether-lands, | Smokers | No | Between | Extended parallel | Motivate me/others to not start smoking (d=.27) Motivate others to quit smoking (d=.29) Quitline (d=.19) Perceived likelihood of harm (d=23) |
|------------------------------|-----|-------|------|----|------------------|---------|----|---------|-----------------------------------|--|
| | | | | | Belgium | | | | process model, Fear appeals | Motivate me/others to not smoke - composite (d=.34) Negative affective reactions (d=.10) Other – fear control mode (d=.65) |
| Kees (2006) - Study 1[25] | 76 | YA, A | 22 | 59 | United States | Smokers | No | Between | _ | Motivate me to quit smoking (d=.59) Motivate me/others to not smoke - composite (d=.51) Negative affective reactions (d=.05) Negative pack/brand attitudes (d=.73) |
| Kees (2006) - Study 2[25] | 199 | YA, A | _ | 0 | United States | Smokers | _ | Between | _ | Motivate me to quit smoking (d=.51) Motivate others to quit smoking (d=.97) Negative affective reactions (d=.76) Negative pack/brand attitudes (d=1.31) |
| Kees (2006) - Study 3[25] | 145 | YA, A | _ | 0 | Canada | Smokers | _ | Between | _ | Motivate me to quit smoking (d=.78) Motivate others to quit smoking (d=.80) Negative affective reactions (d=.79) Negative pack/brand attitudes (d=1.27) |

| Kees (2010)[28] | 511 | YA, A | 48 | _ | United States, Canada | Smokers | _ | Between | Fear appeals | Motivate me to quit smoking (d=.40) Negative affective reactions (d=.65) Negative pack/brand attitudes (d=.58) Recall/recognition of warning text (d=10) |
|--|-------|-------|------|----|-----------------------------|-----------------------------------|-----|---------|---|---|
| Kempf (2006)[66] | 467 | YA, A | 22 | 54 | United States | Smokers and non- smokers | No | Between | Fear appeals | Be generally effective (d=.00) Credibility (d=.18) Other – depth of processing (d=.00) Recall/recognition of warning text (d=.00) |
| Lin (2011)[67] | 25 | YA, A | 49 | 52 | United States | Smokers | No | Within | _ | Lower smoking cravings (d=.03) |
| Loeber (2011) - Non- Smokers[68] | 55 | YA, A | 31 | 36 | Germany | Non- smokers | Yes | Within | Attentional bias | Response Time (d=.09) |
| Loeber (2011) - Smokers[68] | 59 | YA, A | 34.3 | 47 | Germany | Smokers | Yes | Within | Attentional bias | Response Time (d=04) |
| Malouff (2012)[69] | 56 | YA, A | 25.8 | 59 | Australia | Smokers | No | Between | _ | Intention to quit smoking (d=.51) Smoking behavior (d=.16) |
| Nimbarte (2005) - Non- Smokers[70] | 41 | _ | _ | _ | United States | Non- smokers | _ | Within | _ | Be effective (scale) (d=.20) |
| Nimbarte (2005) - Smokers[70] | 39 | _ | _ | _ | United States | Smokers | _ | Within | _ | Be effective (scale) (d=.24) |
| Nonnemaker (2010) - Adults[29] | 4,890 | A | 43.5 | 49 | United States | Smokers | No | Between | Theory of reasoned action, Various message processing and health behavior | Attention attracting (d=.40) Aversiveness (d=.49) Perceived likelihood of harm (d=.06) Credibility (d=.10) Intention to quit smoking (d=.06) Negative affective reactions |

| | | | | | | | | | theories | (d=.64) Lower psychological reactance (d=60) Recall/recognition of warning text (d=.00) |
|--|-------|----|------|----|------------------|-----------------------------------|-----|---------|--|--|
| Nonnemaker (2010) - Young Adults[29] | 4,584 | YA | 21.6 | 54 | United States | Smokers | No | Between | Theory of reasoned action, Various message processing and health behavior theories | Attention attracting (d=.52) Aversiveness (d=.50) Perceived likelihood of harm (d=.01) Credibility (d=.04) Intention to quit smoking (d=.06) Negative affective reactions (d=.55) Lower psychological reactance (d=46) Recall/recognition of warning text (d=01) |
| Nonnemaker (2010) - Youth[29] | 4,600 | AD | 15.7 | 53 | United States | Smokers and non- smokers | No | Between | Theory of reasoned action, Various message processing and health behavior theories | Attention attracting (d=.64) Aversiveness (d=.75) Perceived likelihood of harm (d=.01) Credibility (d=.25) Intention to not start smoking (d=02) Negative affective reactions (d=.47) Lower psychological reactance (d=23) Recall/recognition of warning text (d=06) |
| O'Hegarty (2006)[23] | 763 | YA | _ | 43 | United States | Smokers and non- smokers | Yes | Within | _ | Motivate me to quit smoking (d=.72) Motivate me/others not start smoking (d=.59) Negative affective reactions (d=.56) |

| Peters (2007) – Non- Smokers[71] | 81 | YA, A | 34 | 46 | United States | Non- smokers | No | Between | Fear appeals, Defensive avoidance | Attention duration (d=1.59) Credibility (d=.07) Negative smoking attitudes (d=.88) |
|--|------|--------|------|----|------------------|-----------------------------------|-----|---------|---|--|
| Peters (2007) – Smokers[71] | 88 | YA, A | 37 | 70 | United States | Smokers | No | Between | Fear appeals, Defensive avoidance | Attention duration (d=1.89) Credibility (d=41) Negative smoking attitudes (d=.77) |
| Qin (2011) – Non- Smokers[45] | 714 | YA, A | 34 | 31 | China | Non- smokers | No | Within | _ | Deters giving cigarettes as gift (d=1.78) Motivate me to quit smoking (d=1.88) Other - Clarity |
| Qin (2011) – Smokers[45] | 162 | YA, A | 34 | 94 | China | Smokers | No | Within | _ | Deter giving cigarettes as gift (d=1.50) Motivate me to quit smoking (d=1.27) Other - Clarity |
| Racela (2012)[72] | 205 | YA, A | _ | 83 | Thailand | Smokers | Yes | Between | Fear appeals | Intention to quit smoking (d=.44) Negative affective reactions (d=.07) Negative pack/brand attitudes (d=.23) Negative smoking attitudes (d=.29) Perceived ethicality (d=.38) |
| Romer (2013)[39] | 3297 | YA, A | 33.2 | _ | United States | Smokers | No | Between | Efficacy-desire model | Intention to quit smoking (d=.05) Lower smoking cravings (d=08) Self-efficacy (d=.01) |
| Sabbane (2009a)[73] | 168 | AD | _ | 47 | Canada | Smokers and non- smokers | No | Between | General priming theory | Intention to not start smoking (d=.14) Negative pack/brand attitudes (d=.71) |
| Sabbane (2009b)[27] | 220 | AD, YA | - | 41 | United States, | Non- smokers | No | Between | _ | Negative pack/brand attitudes (d=.82) |

| | | | | | Canada | | | | | |
|--------------------------------------|------|-------|------|----|------------------|-----------------------------------|-----|---------|---|---|
| Schneider (2012)[36] | 88 | YA, A | 22 | 56 | Germany | Smokers | No | Between | Extended parallel process model, Fear appeals, Protection motivation theory | Perceived likelihood of harm (d=.21) Perceived severity of harm (d=.80) Response efficacy (d=.51) Motivate me to quit smoking (d=.95) Negative affective reactions (d=1.37) Self-efficacy (d=.00) |
| Thrasher (2007)[75] | 89 | YA, A | 27.6 | 54 | Mexico | Smokers | No | Within | _ | Lower willingness to pay (d=.41) |
| Thrasher (2011)[76] | 402 | YA, A | 38 | 56 | United States | Smokers | No | Within | _ | Lower willingness to pay (d=.16) |
| Thrasher (2012)[74] | 981 | YA, A | _ | 41 | United States | Smokers | No | Between | _ | Be effective (scale) (d=1.11) Credibility (d=.36) Personal relevance (d=.90) |
| Vardavas (2009)[77] | 574 | AD | 15 | 46 | Greece | Smokers and non- smokers | No | Within | _ | Cognitive elaboration (d=1.83) Motivate me/others to not start smoking (d=2.20) |
| Veer (2012) - Smokers[78] | 194 | YA, A | 24 | 47 | England | Smokers | No | Between | Terror management theory, Morality salience hypothesis | Intention to not start smoking (d=8.83) Other – cognitive processing (d=13.87) |
| Veer (2012) - Non- Smokers[78] | 136 | YA, A | 24 | 47 | England | Non- smokers | No | Between | Terror management theory, Morality salience hypothesis | Intention to not start smoking (d=7.14) Other - cognitive processing (d=4.28) |
| Wade | 1778 | AD, | _ | _ | Russia | Smokers | Yes | Within | _ | Motivate me/others to not smoke - |

| (2010)[79] | YA, A | | and | | composite (d=.23) |
|------------|-------|--|---------|--|-------------------|
| | | | non- | | |
| | | | smokers | | |

Note. C=children (ages 10 and under), AD=adolescents (ages 11-17), YA=young adults (ages 18-25), A=Adults (ages 26+), dash (–) = not reported. N=sample size; d=standardized mean difference (pooled effect size). Numbers refer to the references as listed in the main article.